

## **REMARKS**

This reply is in response to the Non-Final Office Action dated October 28, 2010. Claims 58-62, 64, 65, and 73-85 are pending in the application and stand rejected.

Applicant has amended Figures 2H and 2I to explicitly depict the tethers (tethers 19) that are discussed in the specification, as filed, *inter alia*, at [Para. 031] and [Para. 040]. Applicant has also amended paragraphs [Para 31] and [Para 40] to include a reference numeral (19) for the tethers shown in the Figures, as amended. No new matter has been added.

Applicant has canceled claims 78 and 84 without prejudice. Applicant has also amended claims 58, 64, 65, 73, and 80 and added new claim 86 to more clearly recite aspects of the invention and/or to correct matters of form. No new matter has been added.

Entry of the foregoing amendments and reconsideration of the claims in light of the remarks below is respectfully requested.

### **Objections to the Specification and Drawings**

The specification is objected to for lacking antecedent basis for the "tether system" recited in claim 61. Also, the drawings are objected to for failing to illustrate the tether system of claim 61. Applicant has amended both the specification and the drawings, obviating the rejection. Specifically, Applicant has amended paragraphs [Para 31] and [Para 40] to provide a reference numeral (19) for the "tethers" that were originally disclosed therein. Moreover, Applicant has amended Figures 2H and 2I to properly identify the tethers 19.

Such amendments to the specification and drawings do not constitute new matter. Applicants remind the examiner that "[i]n establishing a disclosure, applicant may rely not only on the description and drawing as filed but also on the original claims if their content justifies it." MPEP § 608.01(l). As originally filed, claim 5 recited "a tether system to retain said pipeline in position and to resist forces of undersea currents." Moreover, while not specifically providing a reference numeral for the tether system, each of paragraphs [0008], [0031], and [0040] of the specification as originally filed explicitly disclosed a tether system and described its basic

function. For example, paragraph [0031] states, "Such tethers can be installed and secured using methods and apparatuses well known to one skilled in the art." Installing and securing tethers 19 as now illustrated in Figures 2H and 2I (replacement drawings sheet 4 of 11) filed herewith is at least one method known to those skilled in the art. Consequently, detailing where a typical tether system could be installed as shown in Figures 2H and 2I (replacement drawings sheet 4 of 11), and providing a corresponding reference numeral for the tether system in paragraphs [0031] and [0040] does not constitute new matter.

Accordingly, Applicant respectfully requests entry of the amended Figures 2H and 2I and paragraphs [Para 31] and [Para 40], and withdrawal of the objection.

### **Claim Rejections – 35 U.S.C. § 103**

Claims 73-76, 78, and 79 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Richmond et al. (U.S. Patent No. 5,582,252; hereafter "*Richmond*") in view of Brown (U.S. Patent No. 3,524,325; hereafter "*Brown*"). Claim 78 has been canceled, rendering the rejection of this claim moot. With regard to claims 73-76 and 79, Applicant has amended base claim 73, obviating the rejection.

More particularly, Applicant has amended claim 73 to include a first unbuoyed section of the pipeline extending from the top of an undersea escarpment and a second unbuoyed section of the pipeline extending from the bottom of the undersea escarpment, and at least one positively buoyant inverse catenary section disposed between the first and second unbuoyed sections for traversing the undersea escarpment. As correctly noted by the examiner, *Richmond* is silent with respect to traversing an escarpment. Office Action of Oct. 28, 2010, p.4. And *Brown* does nothing to cure this deficiency. While *Brown* depicts an undulating seabed, *Brown* does not teach, show, or suggest a pipeline traversing an escarpment between the top and the bottom thereof, but instead requires that the pipeline 32 lay directly on the ocean bottom 22. Col. 4, ll. 67-75.

The examiner appears to suggest that one of ordinary skill in the art can modify the ocean floor disclosed in *Richmond* with the ocean floor disclosed in *Brown*. Specifically, the examiner alleges that it would have been obvious to "modify Richmond et al. to include the topographic feature as taught by Brown since such features are indigenous to the seabed environment." Applicant respectfully asks the questions: "how?" and "what 'seabed environments'?" There is

no conceivable way that one of ordinary skill in the art, not being a creator of the earth's surface, can modify *Richmond* to include the "seabed environments" of *Brown*, as suggested by the examiner. To support a rejection under 35 U.S.C. § 103(a), MPEP § 2143.02 requires the proposed modification to have a "reasonable expectation of success." Mere conclusory statements that such a modification can be done is not sufficient to support a finding of obviousness under 35 U.S.C. § 103(a). Further, in *KSR Int'l. Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739 (2007), the Court stated that "a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Rather, the key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. *See*, MPEP 2142 *citing KSR* (82 USPQ2d 1385, 1396 (2007)). The Federal Circuit has also stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). *See also KSR*, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval). Accordingly, Applicant respectfully requests clarification or an explanation as to how the "seabed environment" disclosed in *Richmond* can be modified according to the "seabed environment" disclosed in *Brown*. Alternatively, withdrawal of the rejection and allowance of the claims is respectfully requested.

Dependent claim 77 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Richmond*, in view of *Brown*, and further in view of Tucker (U.S. Patent No. 4,100,752; hereafter "*Tucker*"). *Richmond* and *Brown* have been discussed and distinguished above, and *Tucker* does nothing to remedy the deficiencies of *Richmond* and *Brown*. And since claim 77 includes all the limitations of base claim 73, claim 77 is allowable for at least the same reasons.

Claims 58, 59, 62, 64, 65, 80-82, 84 and 85 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Richmond* in view of *Brown* and further in view of Moses et al. (U.S. Patent No. 5,615,977; hereafter "*Moses*"). Claim 84 has been canceled, rendering the rejection of this claim moot. With regard to claims 58, 59, 62, 64, 65, 80-82, and 85, Applicant has amended base claims 58 and 80, obviating the rejection.

More particularly, claims 58 and 80, as amended, each require a subsea pipeline constructed to carry fluids across an escarpment between a top of the escarpment and a bottom thereof. As discussed above, neither *Richmond* nor *Brown*, nor the combination thereof, teaches, shows, or suggests a subsea pipeline constructed to carry fluids between a top of an escarpment and a bottom thereof, and *Moses* does nothing to cure this deficiency. Instead of traversing any subsea topographical features, *Moses* simply discloses coupling a subsea storage point located on the ocean floor to a floating vessel at the surface. Col. 1, ll. 7-9. Accordingly, the combination of *Richmond*, *Brown*, and *Moses* does not teach, show or suggest a subsea pipeline constructed to carry fluids across an escarpment between a top of the escarpment and a bottom thereof, as required by base claims 58 and 80, and those dependent therefrom. And there is no reasonable expectation that such could be successfully done in view of the teachings of each reference. MPEP § 2143.02(II). For at least this reason, withdrawal of the rejection and allowance of the claims is respectfully requested.

Furthermore, base claims 58 and 80 require a flexure control device disposed at the top of the escarpment and located between a first unbuoyed pipeline section and a distributed buoyancy region. As correctly acknowledged by the examiner, *Richmond* does not teach, show, or suggest this limitation. Office Action of Oct. 28, 2010, p.8. *Brown* is silent as to a flexure control device, and *Moses* does nothing to cure this deficiency. Instead, *Moses* discloses flexible couplings 32 positioned between adjacent intermediate pipe sections 30 of the riser 12 as the riser 12 extends between the seabed 20 and the platform 16. Col. 4, ll. 54-59; *see also* Figures 1, 2, 4, and 5. Accordingly, the combination of *Richmond*, *Brown*, and *Moses*, at the very least, does not teach, show, or suggest a flexure control device disposed at the top of the escarpment and located between a first unbuoyed pipeline section and a distributed buoyancy region, as required in base claims 58 and 80, as amended, and those claims dependent therefrom. For at least this reason, withdrawal of the rejection and allowance of the claims is respectfully requested.

Dependent claims 60 and 83 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Richmond* in view of *Brown* and *Moses*, and further in view of *Tucker*. *Richmond*, *Brown*, and *Moses* have been discussed and distinguished above, and *Tucker* does nothing to remedy the deficiencies of *Richmond*, *Brown*, and *Moses*. And since claims 60 and 83

include all the limitations of base claim 58 or 80, claims 60 and 83 are allowable for at least the same reasons.

Claim 61 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Richmond* in view of *Brown* and *Moses*, as applied to claim 58, and in further view of Wittgenstein (U.S. Patent No. 3,173,271; hereafter "*Wittgenstein*"). Applicant respectfully traverses the rejection.

*Brown* and *Moses* have been discussed and distinguished above. *Wittgenstein* does nothing to remedy the deficiencies of *Brown* and *Moses*. And since claim 61 includes all the limitations of base claim 58, claim 61 is allowable for at least the same reasons. Withdrawal of the rejection and allowance of the claim is respectfully requested.

### **Conclusion**

Applicant invites the Examiner to telephone the undersigned attorney if there are any issues outstanding which have not been addressed to the Examiner's satisfaction.

If any fees are due with the noted amendments, the Director is hereby authorized to charge any fees associated with this filing to Deposit Account Number 11-0400 in the name of Kellogg Brown & Root LLC.

Respectfully submitted,

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Date

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